



**INTEGRATED CIRCUIT HAVING PROGRAMMABLE ANALOG FUNCTIONS AND
COMPUTER AIDED TECHNIQUES FOR PROGRAMMING THE CIRCUIT****Publication number:** WO9532478**Publication date:** 1995-11-30**Inventor:** KLEIN HANS W (US)**Applicant:** IMP INC (US); KLEIN HANS W (US)**Classification:****- International:** G06F17/50; G06G7/06; G06J1/00; G06F17/50;
G06G7/00; G06J1/00; (IPC1-7): G06F17/50; G06G7/06**- European:** G06F17/50D4; G06F17/50D8; G06G7/06; G06J1/00**Application number:** WO1995US06527 19950522**Priority number(s):** US19940248311 19940524; US19940316400 19940930;
US19940316432 19940930**Also published as:** WO9532481 (A1)**Cited documents:** WO9009639 EP0450863[Report a data error here](#)**Abstract of WO9532478**

An arrangement of analog circuit modules (21, 23, 25, 27, 33, 37, 39) assembled on a single integrated circuit chip (922) with the ability of the user to program, by serially providing configuration data (Fig. 6) to the chip through its pins (65, 67, 69), certain functions and operational parameters of the individual modules, and to interconnect the modules in a specified way in order to form a desired analog system on the single chip. Software (Fig. 10) running on an ordinary desktop computer system (Fig. 8) assists a user, even though not a highly skilled analog circuit designer, to generate the configuration data, and thus assemble an operational analog system on the circuit chip. The software (Fig. 10) initially displays the circuit modules and other resources on the chip, without connection between them (Fig. 9), and then builds a picture of the system configuration being implemented (Fig. 16A) as the user selects among operable options listed by the software for various module functions, operating parameters and interconnections. When the desired circuit has been formed on the display, the configuration data to implement the circuit is compiled for loading onto the circuit chip. The software also has the ability to display a schematic diagram (Fig. 16B) of a circuit formed on such a chip from only the configuration data stored thereon.

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